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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,952	01/28/2002	Peter Holemans	38190/239691	4630

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ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/058,952

Applicant(s)

HOLEMANS ET AL.

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-24 is/are pending in the application.
- 4a) Of the above claim(s) 17-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The finality of the rejection of the last Office action is withdrawn because this Office action includes rejections based on newly discovered art.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

*Election/Restrictions*

3. Claims 17-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election of a shaft (Group I) was made **without** traverse in Paper No. 4.

*Drawings*

4. The drawings were received on Jan 12, 2004. These drawings are approved.

*Response to the Amendment*

5. The amendment filed Jan 12, 2004 is objected to because it amends paragraph at page 9, line 36, but fails to include the changes made to that paragraph in the amendment filed Sep 15, 2003.

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for a rejection under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 5 & 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Derleth, US 3,669,501. Figs. 1 & 2 show a damage tolerant shaft comprising: an annular body 10 symmetrical about an axis; a plurality of ribs 58 (see also col. 4, line 42) extending inwardly from the annular body and connecting with an interior of the annular body; and a filler material 16 disposed within interstices defined between the annular body and the plurality of ribs and between the plurality of ribs at a point of connection, wherein the annular body and the plurality of ribs cooperate to define a plurality of voids 62 extending lengthwise there along. In col. 1, line 71 through col. 2, line 15, Derleth discloses the annular body and the plurality of ribs are made of a composite material 14 and a metallic material 12.

8. Claims 1-3, 5 & 9-12 are rejected under 35 U.S.C. 102(b) as being clearly by any one of Main, US 3,909,065 and Baumgartner, US 4,114,953.

9. Claims 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Offutt, US 3,792,141. Fig. 16 shows a damage tolerant shaft 116 comprising: a plurality of lobes (the six “sections” (see col. 11, line 69) surrounding the center section), the lobes shaped relative to one another such that the lobes are capable of being positioned to define an annular body and a plurality of ribs extending within the annular body. Fig. 16 shows an outer layer (the outer ring

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portion of the shaft 116) surrounding the plurality of lobes. In col. 11, lines 69-71, Offutt discloses a filler is disposed within interstices between portions of the adjacent lobes and between the outer layer and the lobes. In col. 1, lines 65+, Offutt discloses the lobes and outer layer of the shaft 116 are formed of composite material (see “resin impregnated core” in line 69) including a plurality of reinforcing fibers (see “sheets of fiberglass” in line 72 and “glass fiber mat” in col. 8, line 18).

10. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Born et al, US 2001/0050110. Figs. 1-3 shows a damage tolerant shaft comprising: a plurality of lobes 4, the lobes shaped relative to one another such that the lobes are capable of being positioned to define an annular body and a plurality of ribs extending within the annular body. Figs. 1 & 2 show a filler 3 is disposed within interstices between portions of the adjacent lobes 4.

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derleth. Derleth shows all the limitations of the claims, but does not expressly disclose making the annular body and the plurality of ribs made of organic material. It would have been obvious to

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one having ordinary skill in the art at the time the invention was made to make the annular body and the plurality of ribs from organic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

13. Claims 7 & 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derleth in view of Offutt. Derleth shows all the limitations of the claims but does not expressly disclose making the annular body and the plurality of ribs with a plurality of reinforcing fibers. In col. 1, lines 56-60, Offutt teaches making structural members (e.g. an annular body and a plurality of ribs) with a plurality of reinforcing fibers in order to provide those members with great strength. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the damage tolerant shaft of Derleth by making the annular body and the plurality of ribs with a plurality of reinforcing fibers in order to provide those members with great strength as taught by Offutt.

#### *Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda  
Primary Examiner  
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